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PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Shadle, Mark A.	Atty. Docket:	90974.000007
Serial No.:	10/651,693	Examiner:	Henderson, Mark T.
Filed:	August 29, 2003	Art Unit:	3722
Title:	IRREVERSIBLE METAL FILM DISPLAY		

RESPONSE

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

This responds to the Office Action mailed March 25, 2004. A Petition for a one month extension of time together with the required fee accompanies this response.

Most of the claims stand rejected under 35 USC 102(b) as being anticipated by one or the other of two patents naming all of the inventors of this application and one other. The same two patents are used to reject four of the claims under 35 USC 103(a). The two patents do not arise as prior art as discussed below with respect to the individual rejections.

Novelty Rejections

Claims 1-3, 5-15, and 17-19 stand rejected under 35 USC 102(b) as being anticipated by US Patent No. 5,912,759 to Good et al. The subject application is a Division of issued parent Application No. 09/910,335, which parent is a Division of issued grandparent Application No. 09/426,225, giving the subject application an effective filing date of October 22, 1999. The Good et al. patent first published (i.e., issued) on June 15, 1999, which is not more than one year prior to the effective filing

date of the subject application. Therefore, the Good et al. patent does not arise as prior art under section 102(b).

Moreover, the Good et al. patent does not disclose all of the limitations recited in the claims beginning with independent claim 1, which requires a window providing access to the metal film for exposing the metal film to a chemical agent. The noted window 128 found in FIGS. 7 and 8 is nothing more than a gap in a graphics layer and does not provide access to the thin-film electrode layer 116. Three other layers block access. The first layer is a transparent substrate 126 that supports the graphics. The second layer is an electrolyte layer 114, and the third layer is a passivation layer 112. Dependent claim 9 requires the display window to be formed as an opening in a top substrate. The top substrate 126 does not have any such opening; only the graphics layer above it has an opening. Even if the top substrate 126 did have an opening, the opening would not expose the metal film because two other layers including the passivation layer 12 still cover the metal film. Independent claim 14 also requires an opening in one of the substrates supporting the metal film. There is no such opening in the electrochemical displays found in the Good et al. patent.

Claims 20-27 and 30-33 stand rejected under 35 USC 102(b) as being anticipated by US Patent No. 6,245,192 to Mitchell et al. The Mitchell et al. patent issued on June 5, 2001, which is well after the effective filing date of the subject application of October 22, 1999. However, the Mitchell et al. patent is a continuation-in-part of Application No. 09/067114, which issued as US Patent No. 5,930,023 on July 27, 1999. Neither Mitchell et al. patent published (issued) more than one year before the filing date of the subject application. Therefore, the Mitchell et al. patents do not arise as prior art under section 102(b).

Moreover, the Mitchell et al. patent does not disclose all of the limitations recited in the claims beginning with independent claim 20, which requires a protective layer to be laid out in a pattern on the metal film. A first portion of the metal film is not covered by the protective layer and is accessible to the clearing agent that changes the metal film

from opaque to clear upon contact. A second portion of the metal film is covered by the protective layer and is at least temporarily inaccessible to the clearing agent. The Examiner identifies the electrode layer 272 as a protective layer for Mitchell et al.'s metal film. However, not only does the electrode layer 272 not protect the metal layer, the electrode layer activates the electrolyte 276 for clearing the metal film. The electrochemical reaction relied upon for clearing the metal film requires the electrolyte to be in contact with both the metal film and the electrode 272. Removing one or the other stops the electrochemical reaction. Dependent claim 26 requires the display window to be formed as an opening through which a clearing agent can be applied to the metal film. No such openings are found in the display windows of Mitchell et al.

Obviousness Rejections

Claims 4 and 11 stand rejected under 35 USC 103(a) as being obvious over the patent to Good et al. in view of the patent to Mitchell et al., and claims 28 and 29 stand rejected under 35 USC 103(a) as being obvious over the Mitchell et al. patent alone. Neither patent arises as prior art under section 102(b) and, therefore, cannot be presumed to be prior art under 35 USC 103(a). The limitations of the base claims from which claims 4, 11, 28, and 29 are not found in either of the applied references. The inventors' earlier work reflected in the two applied patents relates to displays that are specifically designed to support electrochemical reactions involving two electrodes and an electrolyte, which is a fundamentally different mechanism from mechanism used in the displays of the subject invention, which involves the interaction of a chemical clearing agent with a metal film. Thus, the structures in the earlier patents are not obvious counterparts to the structures of the claimed invention.

Allowable Subject Matter

Claim 16 is deemed allowable except for matters of form. The Examiner is thanked for his favorable consideration of this subject matter. However, no changes in form have been made because the base claims are believed to be allowable for the reasons noted above.

* * *

In view of the above remarks, reconsideration and allowance of all of the pending claims 1 through 33 are respectfully requested. For any questions regarding this response of the application, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,

 July 23, 2004

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